Is There a Site Here?

Overview:

These lessons are designed to be used within the science curriculum. Students learn the basics of archaeology through vocabulary, reading assignments, and hands-on exercises. Follow-up activities include crossword and word search puzzles and web-based research.

Objectives:

To teach students the basics of archaeology, including how sites are located, the steps of excavation, and basic archaeological terms.

To provide a basic understanding of Georgia's prehistory.

To encourage critical analysis of materials using scientific methods.

To introduce archaeology as a career option.

To increase vocabulary comprehension.

To increase reading comprehension.

Time Required:

At least five classroom periods (about 45 minutes each). This does not include a visit by an archaeologist or a field trip to an archaeological site. Each session is followed up with an independent activity.

Materials Required:

Most materials required for this class are included in the Archaeology Trunk. Teachers will need to prepare copies of all student handouts. Web-based follow up activities will require the use of school or home computers with internet connections.

Materials Provided: These materials can be used for a classroom display or for a field exercise under the direction of a professional archaeologist.

screen
trowel
compass
root cutters
line level (2)
measuring tape
dust pan
whisk broom
brushes (2)
first aid kit
clip board
level form
feature form
flagging tape
board and markers or chalk
spikes
twine

Supplemental Books:

Archaeology: The Comic by Johannes H.N. Loubser
The Archaeology and History of the Native Georgia Tribes by Max E. White

Suggested Activities: 1). Teachers should contact local archaeologists to arrange for either a field trip or lecture by an archaeologist. Check either of the following two websites to find an archaeologist in your area. You can also check with local colleges and universities.

http://thesga.org/ - The Society for Georgia Archaeology

http://www.georgia-archaeology.org/GCPA/ - The Georgia Council of Professional Archaeologists

2). Visit one the following state or national parks:

Kolomoki Mounds State Historic Park - http://gastateparks.org/info/kolomoki/

Etowah Mounds Archaeological Area - http://ngeorgia.com/parks/etowah.html

Ocmulgee National Monument - http://www.nps.gov/ocmu/

Evaluation:

Student participation, comprehension, and retention are evaluated in several different ways. Students are graded individually on independent follow-up activities such as vocabulary lists and puzzles. Oral presentations are used to evaluate research skills. A quiz is provided to evaluate reading comprehension. In addition, a group activity and discussion sessions can be used to evaluate classroom participation.

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Lesson 1

Objective: To introduce students to the basic scientific concepts of archaeology.

Time Required: One classroom period (about 45 minutes), not including vocabulary follow-up activity.

Materials Required:

1). Individual or group computers, if a classroom Power Point projector is not available.
2). CD-Rom based program
3). Vocabulary list (words only) listed on classroom board for students to copy or printed copy of list for students.
4). Format page for archaeology-related web site activity.

Lesson Plan:

Introduction: General discussion of what students know about archaeology.

Activity: CD-Rom based program on the basic techniques of archaeology.

Closing: Discussion of program, if time allows. Distribution of vocabulary list and web site activity page.

Follow-Up Activities:

1). Vocabulary list - The list presents definitions for terms commonly used by archaeologists. Some of the definitions may not be available in common dictionaries; however, many will be used during the site or classroom visit and during the CD-Rom based program. Students should complete as many definitions as possible. The teacher's answer sheet is marked as to those that are readily available and students should complete these for a 100% grade. Others can be used as bonus points.

2). Students should find one archaeology-related web site and write at least 100 words about that site's content.

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Using the Power Point Presentation

The Power Point Presentation entitled "Is There A Site Here? Learning About Archaeology" can be use two ways.

Option 1. The program can be loaded on to a computer and projected using a digital projector. This would allow the entire class to see the program an one time and for the teacher to lead the discussion. This option requires a computer and a digital projector. If using this option, load the program entitled *Learning About Archaeology Presentation* on to the computer.

Options 2. The program can also be run on any computer as a stand alone product. This does not require the Power Point program. For this options students could use a classroom computer, the school's computer lab, or their personal computer.

To prepare the presentation for veiwing:

1. Place the CD-ROM in drive.
2. Open Windows Explorer
3. Open CD-ROM directory
4. Double click on PNGsetup.exe
5. Choose the folder into which you want the program loaded. It might be a good idea to create a folder for this program.
6. The program will load into that folder and then ask if you want to run the program now.
7. If you wish to run the presentation later or again, simply go to the appropriate directory and click on ppview32, highlight Learning About Archaeology, and click on show.

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Lesson 2

Objective: To provide an overview of Georgia prehistory.

Time Required: One classroom period (about 45 minutes), not including follow-up activities.

Materials Required: Individual handouts of the document *A Glance at Georgia's Prehistory*.

Lesson Plan:

Introduction: General discussion of the CD-Rom based program entitled *Is There a Site Here?*
Collect student assignments from first lesson.

Activity: Discuss archaeology-related web sites found by students.

Closing: Distribute reading assignment.

Follow-Up Activities: *A Glance at Georgia's Prehistory* is a brief reading assignment that will introduce the prehistoric periods established and used by archaeologists. This reading assignment will be used as the basis for a graded classroom quiz to be given during the next class.

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Lesson 3

Objective: To re-enforce and test students on the concepts presented in the overview of Georgia prehistory.

To teach the basics of conducting independent research.

Time Required: One classroom period (about 45 minutes), not including follow-up activities.

Materials Required: The necessary number of copies of the four activity sheets for Lesson 3

Lesson Plan: Introduction: Discussion of the reading assignment.
Activity: Quiz (questions provided).
Division of students into four equal sections and explanation of assignment.
Closing: Distribute Activity sheets and allow students time to ask questions about the assignment. The oral presentations are to be graded on content (50%), presentation (25%), and length (25%).

Follow-Up Activities: Randomly divide the class into four equal sections. Assign each individual in the first group Follow-Up Activity 1. Assign each individual in the second group Follow-Up Activity 2. Assign each individual in the third group Follow-Up Activity 3. Assign each individual in the fourth group Follow-Up Activity 4. Handout sheets are provided for each Follow-Up Activity.
Teachers: as each student is required to give a three minute oral presentation on their research question, you should set deadlines that will allow for the proper amount of class time for each group.

Follow-Up Activities 1 and 2). Students should visit the following web sites to learn more about the one of the first two periods of Georgia prehistory. All of these websites are sponsored by reliable archaeological organizations. Students should be prepared to provide a three minute oral summary of the information along with the completed Internet Research forms for each site visited.

Activity 1 - Paleoindian: http://www.cr.nps.gov/seac/paleoind.htm
http://www.ohiohistorycentral.org/ohc/archaeol/p_indian/tradit/paleo.shtml
http://www.people.memphis.edu/~chucalissa/Paleo.html
http://www.uiowa.edu/~osa/learn/prehistoric/paleo.htm

Activity 2 - Archaic: http://www.cr.nps.gov/seac/archaic.htm
http://college.hmco.com/history/readerscomp/naind/html/na_002500_archaicindia.htm
http://www.people.memphis.edu/~chucalissa/archaic.html
http://bama.ua.edu/~alaarch/prehistoricalabama/archaic.htm

Follow-Up Activities 3 and 4). Georgia's history, like that of surrounding states, contains a period when the Native population was "removed" to western lands. Students in groups 3 and 4 will do internet research about the removal of either the Cherokee or Creek tribes from Georgia. Students should be prepared to provide a three minute oral summary of the information along with the completed Internet Research forms for each site visited.

Activity 3 - Cherokee: http://ngeorgia.com/history/cherokeeforts.html
http://www.rosecity.net/tears/
http://www.pbs.org/wgbh/aia/part4/4p2959.html

Activity 4 - Creek: http://www.pbs.org/wgbh/aia/part4/4p2959.html
http://www.nps.gov/ocmu/Removal.htm
http://www.anpa.ualr.edu/trail_of_tears/indian_removal_project/eye_witness_accounts/eye-witness4.htm

A Glance at Georgia's Prehistory
Quiz

1. By the time Europeans arrived in the New World, how long had the Native population lived in North America?

2. What are the spear points made by Paleoindian peoples called?

3. In the Middle Archaic period, artifacts like manos and metates appear. What does this suggest about food patterns?

4. What technological innovation appeared in the Late Archaic period?

5. When did Native Americans begin to experiment with agriculture?

6. What crops did they grow?

7. In the Mississippian period, some towns had mound complexes; what were the complexes used for?

8. What do the presence of these mound complexes imply?

9. Who were the first Europeans to enter Georgia?

10. Name two changes that occurred in the lives of Native populations as a result of European contact?

Bonus Questions:

1. The Archaic, Woodland, and Mississippian periods are divided into early, middle, and late subperiods. What do archaeologists use to divide the periods in the Archaic? In the Woodland and Mississippian?

2. What method did Late Woodland potters use to decorate their pottery?

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Lesson 4

Objective: To learn the four steps of the scientific method and to apply them to an archaeological question.

Time Required: One classroom period (about 45 minutes), not including the follow-up activity.

Materials Required:

1.) Eight packets of artifacts are provided in the teaching trunk.

2.) The four steps in the scientific method are to be posted for the students.

3.) One copy of the student handout Scientific Method for each of the eight groups.

4.) One copy of the crossword puzzle *The Science of Archaeology* for each student.

Lesson Plan:

Introduction: Discussion of the steps within the scientific method.

Activity: Division of students into eight equal sections. Provide each group with one of the packets of artifacts. Some groups will receive ceramic artifacts, and others will receive lithic artifacts. **Do not tell the students what the artifacts are or discuss the packets in any manner.** Each group is to complete the handout based on their artifact packets.

Closing: Collect all packets of artifacts making sure that each contains four objects. Collect group worksheets. Distribute the crossword puzzle *The Science of Archaeology*.

Follow-Up Activities: Crossword puzzle *The Science of Archaeology*.

Introduction to the Scientific Method

The scientific method is the process by which scientists, collectively and over time, endeavor to construct an accurate (that is, reliable, consistent and non-arbitrary) representation of the world.

Recognizing that personal and cultural beliefs influence both our perceptions and our interpretations of natural phenomena, we aim through the use of standard procedures and criteria to minimize those influences when developing a theory. As a famous scientist once said, "Smart people (like smart lawyers) can come up with very good explanations for mistaken points of view." In summary, the scientific method attempts to minimize the influence of bias or prejudice in the experimenter when testing an hypothesis or a theory.

I. The scientific method has four steps

1. Observation and description of a phenomenon or group of phenomena.

2. Formulation of an hypothesis to explain the phenomena. In physics, the hypothesis often takes the form of a causal mechanism or a mathematical relation.

3. Use of the hypothesis to predict the existence of other phenomena, or to predict quantitatively the results of new observations.

4. Performance of experimental tests of the predictions by several independent experimenters and properly performed experiments.

If the experiments bear out the hypothesis it may come to be regarded as a theory or law of nature (more on the concepts of hypothesis, model, theory and law below). If the experiments do not bear out the hypothesis, it must be rejected or modified. What is key in the description of the scientific method just given is the predictive power (the ability to get more out of the theory than you put in; see Barrow 1991) of the hypothesis or theory, as tested by experiment. It is often said in science that theories can never be proved, only disproved. There is always the possibility that a new observation or a new experiment will conflict with a long-standing theory.

From: http://teacher.nsrl.rochester.edu/phy_labs/AppendixE/AppendixE.html

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Lesson 5

Objective: To provide an overview of the archaeological concepts and materials presented.

To allow students to think creatively and critically about the science of archaeology and the public's concept of archaeology.

Preparation: Teachers you will need to be familiar with the following movies: *Raiders of the Lost Ark, Indiana Jones and the Temple of Doom, Indiana Jones and The Last Crusade*, *Lara Croft: Tomb Raider*, *Lara Croft: The Cradle of Life*, and *Timeline* (recent movie available on DVD and VHS - suitable for classroom viewing rated PG-13).

Time Required: One classroom period (about 45 minutes), not including the follow-up activity.

Materials Required: 1.) One copy of the word search puzzle *Clay and Stone* for each student.

Lesson Plan: Introduction: Begin the class by asking the students to list any movies that deal with archaeology. Typical answers should include the Indiana Jones series, Lara Croft series, The Mummy series, and *Timeline*.

Activity: Ask students to evaluate each movie or movie series as to how it applies the "science of archaeology." Allow for a free flow of ideas but require that the students think critically.

Teacher questions might include:

1.) Which one of these movies best represents archaeology as a science?

2.) Which of the heroes understands the lure of archaeology, of learning about the past?

3.) Which of these movies deals with treasure hunting rather than archaeology?

4.) Is there a gray line between treasure hunting and archaeology for some of the main characters?

5.) In each of these movies, archaeologists face great dangers to life and limb. What dangers or conditions might real archaeologists face during their work?

Closing: Pass out the word search puzzle *Clay and Stone.*

Follow-Up Activities: Word search puzzle *Clay and Stone.*